

WAFIOS Honored at Award Ceremony for “100 Locations for Industry 4.0 in Baden-Württemberg” Initiative

WAFIOS AG was one of thirteen companies honored at a ceremony at the Neues Schloss (New Palace) in Stuttgart for its “*iQ*control” Industry 4.0 solution.

The WAFIOS *iQ* functions represent solutions which optimize part quality and output rates or minimize setup times. One of these solutions – *iQ*control – allows production data to be processed in real time in order to regulate the manufacturing process when producing compression springs. During the coiling process, the spring is measured with a high-resolution camera system. This data is then used to predict the length of the spring for the entire coiling process – i.e., before coiling is complete. The machine settings are corrected automatically during the coiling process based on the predicted spring length. The pitch of the spring is adjusted as it is being coiled in order to significantly reduce the variation in the spring length at the end of the coiling process and, therefore, to prevent reject parts.

In conventional procedures, the springs are measured during the coiling process and corrections are only applied to the next spring in the production line. The production data cannot be processed in real time. Nor it is possible to improve the dimensional accuracy of the spring as it is being coiled when using the conventional system.

The *iQ*control system, on the other hand, allows the length of the spring to be regulated during the coiling process itself. The process parameters are adjusted individually on the relevant workpiece in real time and the finished part is then checked again at the end. This minimizes reject rates and maximizes process quality.



Fig.: Left to right: Head of Image Processing Volker Kalkau (WAFIOS AG), Head of Development Klaus Wurster (WAFIOS AG) and State Secretary Peter Hofelich at the award ceremony